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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,639	07/31/2000	Jeffrey R. Sampson	10992786-1	3760

7590 05/05/2004

Agilent Technologies  
Legal Department 51UPD  
Intellectual Property Administration  
PO Box 58043  
Santa Clara, CA 95052-8043

EXAMINER

ZARA, JANE J

ART UNIT	PAPER NUMBER
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1635

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/632,639

Applicant(s)

SAMPSON ET AL.

Examiner

Jane Zara

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This Office action is in response to the communication filed 2-2-04.

Claims 1-26 are pending in the instant application.

#### ***Response to Arguments and Amendments***

##### *Withdrawn Rejections*

Any rejections not repeated in this Office action are hereby withdrawn.

##### *Maintained Rejections*

Claims 1-5, 7-17 and 19-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Vivekananda et al for the reasons of record set forth in the Office action mailed 10-2-03.

Applicant's arguments filed 2-2-04 have been fully considered but they are not persuasive. Applicants argue that the prior art of record does not teach any method where one must specifically employ a pair of nucleotide analogs as claimed in the instant invention. Contrary to Applicants' assertions, Vivekananda teaches methods of synthesizing nucleic acid molecules comprising the incorporation of nucleotide analog precursors with a reduced ability to form base pairs with each other (e.g. 2-aminodeoxyadenosine 5'-triphosphate, 2-thiodeoxythymidine 5'-triphosphate...) employing such enzymes known in art as polymerases, as claimed in the instant invention. It is unclear what is meant in Applicants' arguments by *specifically employing a pair of nucleotide analogs*, that distinguishes the instant invention from the prior art. It

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was well known in the art and taught by Vivekananda that these nucleotide analogues are incorporated into polynucleotides by enzymes such as polymerases, and it was well known in the art that these analogues have a reduced ability to hybridize to complementary analogues (e.g. because of reduced hydrogen bonding between analogues), compared to non-analogue containing complementary base pairing. The claims are not drawn to a method of specifically employing a pair of nucleotide analogs, as suggested in Applicants' arguments, but instead are drawn to a method of synthesizing nucleic acid molecules that incorporate the nucleotide analogs into a polynucleotide, which analogues are characterized by their reduced ability to hybridize with complementary analogues.

Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kutyaev et al for the reasons of record set forth in the Office action mailed 10-2-03. Contrary to Applicants' arguments, Kutyaev teaches methods of synthesizing nucleic acid molecules comprising the incorporation of nucleotide analog precursors with a reduced ability to form base pairs with each other (e.g. 2-aminodeoxyadenosine 5'-triphosphate, 2-thiodeoxythymidine or cytidine 5'-triphosphate, pyrrolo pyrimidine triphosphate, inosine triphosphate ...) employing such enzymes known in art as polymerases, as claimed in the instant invention. It is unclear what is meant in Applicants' arguments by *specifically employing a pair of nucleotide analogs*, that distinguishes the instant invention from the prior art. It was well known in the art and taught by Kutyaev that these nucleotide analogues are incorporated into polynucleotides by enzymes such as polymerases, and it was well known in the art that

these analogues have a reduced ability to hybridize to complementary analogues (e.g. because of reduced hydrogen bonding between analogues), compared to non-analogue containing complementary base pairing. The claims are not drawn to a method of specifically employing a pair of nucleotide analogs, as suggested in Applicants' arguments, but instead are drawn to a method of synthesizing nucleic acid molecules that incorporate the nucleotide analogs into a polynucleotide, which analogues are characterized by their reduced ability to hybridize with complementary analogues.

Therefore the rejections are maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Certain papers related to this application may be submitted to Art Unit 1635 by facsimile transmission. The faxing of such papers must conform with the notices

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published in the Official Gazette, 1156 OG 61 (November 16, 1993) and 1157 OG 94 (December 28, 1993) (see 37 C.F.R. § 1.6(d)). The official fax telephone number for the Group is **703-872-9306**. NOTE: If Applicant *does* submit a paper by fax, the original signed copy should be retained by applicant or applicant's representative. NO DUPLICATE COPIES SHOULD BE SUBMITTED so as to avoid the processing of duplicate papers in the Office.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jane Zara** whose telephone number is **(571) 272-0765**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader, can be reached on (571) 272-0760. Any inquiry regarding this application should be directed to the patent analyst, Katrina Turner, whose telephone number is (571) 272-0564. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

A handwritten signature in black ink, appearing to read 'R. Shukla', with a horizontal line underneath.

RAM R. SHUKLA, PH.D.  
PRIMARY EXAMINER

JZ

4-28-04